

432 MHz MHz AND ABOVE EME NEWS

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CONDITIONS

The 2nd contest weekend provided a repeat of the 1st. Excellent conditions were again present on both 432 and 1296. If anything conditions were better in Nov than Oct! The superb conditions has stimulated the largest number of reports this NL has ever received. There is more text in this NL than any other in its 25 years of publication. I guess this is fitting as we move to volume 25!

HIGH CONTEST SCORES

On 432 SM4IVE 155x44, DL9KR 143x44, NC1I 116x41, K1FO 116x38, OE5JFL 124x41, DL9NDD 107x40, UR5LX 100x39 and JA5OVU 87x32; and on 1296 OE9XXI 73x34, F6CGJ 72x33, OE5JFL 68x34, KB2AH 67x33, N2IQU 65x30, OZ4MM 59x29 and F5PAU 50x30.

7M2PDT:

Shu writes -- I had problem with the 4 to 1 power divider in my yagi array during the 1st part of the ARRL Contest. So my 8 yagis were working as 4 or less. After the 1st part I repaired my antenna. The sun noise went from about 8 dB to 10 dB. I also replaced my high voltage transformer. Power is now up to 1.5 KW. During the Nov contest, conditions were very good for vertical pol in Japan. This made the contest a real joy. I worked on 23 Nov VE1ALQ for initial #54, K5AZU #55, K5WXN #56, WA4NJP, W7GBI #57, JA5OVU, JH0YSI, SM3AKW, DJ6MB, JS3SIM, G3SEK, DL8OBU, F1FEN #59, WB6IMC #60, N4GJV, W9QXP, RA3LE #61, DL6NAA #62, UT5DL #63, G4RGK, G3LTF #64, DK3WG, ON4KNG #65 and PA3CSG for a score of 48x23 or 110,400 points. By the way, I have established a home page at: [Shu,7M2PDT](#) Please visit there.

AA6WI:

Hoppie's 23 cm EME Activity Report for Oct/Nov follows -- I felt fortunate to be able to participate in the EME contest this year as my time was divided up between the contest and work in the Philippines. Murphy was on my side in Nov as the work site was closed down during the APEC conference which coincided with the 2nd half of the EME contest! I worked on 26 Oct, on 23 cm, OE9XXI, KB2AH, YL3AG/A, G4DZU, SM4DHN, KD5RO, EA6ADW, F6CGJ, EA3UM, F5PL, W2UHI, VE1ALQ, HB9BBD, F5PL (dupe), OK1KIR, F2TU, F5PAU, N2IQU, W7GBI, WB5LUA, KA0RYT for initial #106, K3EAV, JH3EAO, JH5LUZ, and JA4BLC #107), on 27 Oct K2UYH, OH2AXH, F1ANH, ZS6AXT, SM6CKU, WD5AGO, WB0DRL, OE5JFL, and F5PL (dupe), on Nov 23 OZ4MM, LA8LF, DL9EBL, VE1ZJ, F2TU (dupe), HB9BHU, F6KSX #108, W0KJY, VE6TA, SM4IVE, VE4MA and JH3EAO (dupe), and on 24 Nov SM3AKW, K4QIF #109, DL0SHF, VE3BQN, HB9BBD (dupe), G3LTF, SM2CEW, WA4NJP, VK5MC, JR4BRS, JR4AEP #110) and JA4BLC. The only identified station that wasn't worked was G4CCH (2 years in a row!). The PA flashed over on 23 Nov resulting in having to switch to my backup PA (-3dB less power at 500 w) for the remainder of contest. As WD5AGO stated last month it's becoming more difficult to keep pace with the big stations!!! I had lots of fun and am already looking forward to the 1997 contest! On 22 Nov the Sun with a solar flux of 74 was 11.8 dB on my 3.7 m dish. Contest totals were 52x27.

CT1DMK:

Luis notes: On 432 MHz, I am not so happy with the performance of my 4 yagis. I seem to have a problem as the received signals were worst ever. Only 7 QSOs were made during the contest. Also since I was having fun with my new toy (23 cm EME), I didn't pay much attention on the 70 cm. During the contest I worked on 432: DL9KR (559/559), OH2PO (O/O) for an initial #, SM4IVE (O/O), DL9NDD (O/O) #, OE5JFL (O/O) #, PA3CSG (O/O) # and NC1I (O/O). The rig on 432 is 4x23 el WU yagis, a GS35b PA (1.5KW) and MGF1303. On 1296 MHz, my favorite band, I worked before the contest HB9BBD (539/519), VE1ZJ (O/O), VE1ALQ (O/O), EA3UM (539/329) and OE9ERC (559/449), during the ARRL contest KB2AH (559/559), EA6ADW (539/339), OE9XXI (579/549), F2TU (O/M), OE5JFL (559/549), F6CGJ (O/O), ZS6AXT (O/O), OH2AXH (559/429), HB9SV (559/549), F1ANH (O/O), F5PAU (O/O), N2IQU (O/O), K2UYH (559/459), YL2AG (549/549), SM4SHN (559/439), OZ4MM (559/439), EA3UM (O/O), partial W2UHI (O/-), LA8LF (549/349), DL0SHF (O/O) and OE9ERC (559/439). My plans for 10 GHz were postponed in order to get the 1 KW going on for 23 cm in time for the contest. This turned out to be a bad decision, since the amplifier is giving a lot of trouble and I didn't manage to get it right in time for the contest. I ended up running only 100 w. Now, with or without 1 KW on 23 cm, I will be on 10 GHz by next spring...that's a promise.

DD1XF:

Frank's report from the contest weekends -- In 17 hours of operating time on both weekends I OSO'd 37 stations and which 7 were initials: YL3AG, SM6CKU, PA3CSG, JH5LUZ, K3EAV, DF3RU and F6KSX. On the 1st weekend I never heard before so loud signals before. But I have only 5 hours of operating experience. On the 2nd weekend, the signals sounded more normal. The contest was great fun.

DF9CY:

Chris reports -- I operated DL0SHF through the contest. WX was good with almost no wind. Before the contest Per, DK7LJ made some improvements to the system. A VE4MA horn is now installed and a HEMT-LNA ala DJ9BV fixed to the connector. This gave an improvement in Sun noise from 15.5 dB to 18 dB. I am very pleased with the receive side now. He also installed a G3WDG wide band noise amplifier and we can now see a bit more than 1 dB of moon noise. Conditions in the 1st part of the contest were a bit down with "black holes", where even our echoes were very weak. Murphy struck on 27 Oct at 0200. We had time shift from summer to winter. The dish electronics is totally computerized with a radio controlled clock. The EEPROM was not programmed to follow the shift. So exactly at 0200 the dish moved about 15 degs back in az and no way was found to keep it on the moon. Manual tracking is possible with the installed TV camera, but this ceased to function one hour earlier ... I had to

go QRT! In the contest I got the following results: QSO'd on 26/27 Oct at 1702 YL3AG/A (559/559), 1720 S59DCD (O/539), 1729 OE5JFL (579/569), 1734 IK3COJ (539/549), 1737 HB9SV (569/559), 1745 DD1XF (549/449), 1756 JH5LUZ (559/559), 1820 F5PL (559/569), 1827 F2TU (569/559), 1835 SM6CKU (549/559), 1910 SM3AKW (449/449), 1917 OH2AXH (559/559), 1928 F1ANH (559/559), 1938 F5AQC (549/559), 1950 HB9BBD (559/569), 1956 F6CGJ (569/569), 1959 JH3EAO (559/559), 2005 EA6ADW (559/559), 2007 ZS6AXT (549/569), 2014 JA4BLC (549/559), 2020 SM4DHN (569/559), 2032 OE9XXI (579/569), 2041 F5PAU (569/449), 2055 G3LQR (539/569), 2111 G4DZU (O/O), 2134 DH9FAG (M/529), 2147 G3LTF (559/569), 2247 OK1CA (549/559), 2311 DL9EBL (579/569), 2315 DF3RU (549/559), 2327 KB2AH (559/559), 2334 EA3UM (559/559), 2348 GW3XYW (559/559) and 2355 N2IQU (569/559), on 27 Oct at 0002 K3EAV (439/529) and 0050 WB0DRL (549/559), and on 23/24 Nov at 1615 LA8LF (559/569), 1625 I2COR (O/529), 1638 S59DCD (339/549) DUPE, 1709 VK5MC (O/O), 1803 OZ4MM (579/569), 1816 F6KSX (549/549), 1822 DF9QX (549/549), 1828 HB9BHU (459/559), 0121 AA6WI (439/339), 0128 WD5AGO (449/339), 0149 W2UHI (559/549), 0200 VE6TA (439/449), 0214 WB5LUA (559/569), 0218 VE1ALQ (549/569), 0228 K4QIF (559/559), 0236 G4CCH (339/439), 0248 K2UYH (559/559), 0301 CT1DMK (O/O), 0304 SM2CEW (549/559) and 0358 KD5RO (449/549). Heard were PA3CSG, W4OG(?), KB3PD lost, SM4IVE and others. I ended with 55x28 or 154,000 points, twice the number of last year. Our standings are #70 initial with 24 DXCC countries. Per, DK7LJ made a number of QSOs on SSB in the 1st part of the contest using the DL0SHF equipment. This is the same station as DL0SHF! A new station located very close to my place is DC6UW (JO44). He has the same type of dish as DL0SHF. He already listened in the contest. Detailed information on DL0SHF and my own activities is always available on my home page at: Chris, DF9CY

DJ7FJ:

Joe reports for EME newsletter - I was QRV in the contest on 5.760 and 10368 MHz. My final score is 5x5 on 5760 and 9x7 on 10 GHz. In order not to be punished by the contest rules, I'll send in only for one band. If I send the logs for both bands, I'm in competition as a multiband station and compete with the multi band ops working on 2m, 70 cm and 23 cm etc. [This is certainly a problem the contest rules makers should consider.] Despite that rules, I'll continue operating on different upper bands and I'm hoping others will do so as well. I worked on 5760 MHz, on 26/27 Oct OK1KIR (M/O) for initial #5, SM4DHN (O/O) and I6PNN (O/O) #6, and on 23/24 Nov WB5LUA (O/O) and VE4MA (M/M) #7. I worked on 10 GHz, on 26/27 Oct S56UUU (O/O), I4CHY (O/O), F6KSX (O/O), WB5LUA (O/O), AA5C (M/O) for initial #27 and WA7CJO (559/549) and (45/54) on SSB, and 23/24 Nov G3WDG (539/539), G4KGC (539/539) [same as G3WDG] and VE7CLD (O/M). This contest was

the baptism of fire for my new antenna and shack. I've got now the possibility to work from two different locations. The old one is at my QRL, 25 km east from home. There is a 4.5 m dish on the roof of the building. This dish is stored laying on its face. For operation, it has to be lifted up, fixed on the mounting post, etc., and laid down later after operating is done. All necessary equipment including the operators are outside and have to withstand the weather. The 2nd and new location is 25 km west from home. I have the possibility of renting shelter under the RADAR tower on the airport of Lahr. This airport was recently left by the Canadian forces, and is now under civil use. My site includes the shelter and the remnants of the RADAR tower. During last summer a lot of work was done to get ready for the ARRL contest. A new 4 m dish was transported from Stuttgart to Lahr and mounted on a revolving platform. New feeds were necessary for this dish which has only an f/d of 2.9. Everything is now complete, including the furniture in my "bullet-proof" windowless shack. Equipment on 6 cm is the 4 m dish, VE4MA horn, circ-WG, WG-SMA-transition, coaxial relay, preamp and PA with 20 w mounted at the feed. Moon noise is 0.8 dB, the echoes are weak but very detectable. There is still some potential for optimization of the feed and increasing the power. The equipment on 10 GHz is the same dish, VE4MA horn, WG-Switch; preamp fixed directly on the switch, TWT with 50 w in a box on the rear of the feed. The power is transported via 50 cm of cable to an SMA/WG transition, some waveguides and bends, 1 m flexible guide, from the dish rear to the relay at the feedpoint. The echoes are good (to my feeling, as good as at the other station). I can copy even in SSB. Sun noise was 15.5 dB and moon noise 2.3 dB on the contest dates.

DK3FB:

Ruediger had the following contacts on 432 during the 2nd leg of the contest: DL9KR, SM4IVE, K6GW, K1FO, DJ6MB, OH2PO, OE5JFL, K4QIF, K5AZU, DK3WG, JA5OVU, NC1I, N2IQU, K0RZ, N4GJV, OZ4MM, ON4KNG, KD4LT and VE1ALQ. He also heard DF3RU, 7M2PDT, EA8/ON5FF, DL1EJA, F1FEN, HB9SV, W7FN, PA3DZL and W1ZX. W1ZX was (569), but did not response on his call. Finally he heard the Mars Global Surveyor on Monday evening (more then 5 million km away) for over one hour.

DK3WG:

Jurg worked in the 2nd part -- HB9SV (559/559), K0RZ (549/549), WA4NJP (449/559) dup, ON5OF, DL6WU, KD4LT (559/559), DJ6MB (449/539), HB9SUL for initial #320, K5JL (549/549), DL6NAA (O/549), VE1ALQ, IW5AVM, heard NA4N, DF3RU (539/559), EA8/ON5FF #321, G3LQR, G3LTF #322, K2UYH (549/549), 9M2BV (559/559), JS3SIM (549/559), DL1EJA (529/529) dup, G3HUL (539/559), PA2CHR (429/O), JA5OUV (559/559), DK3FB (539/559), SM2CEW (559/559), DL3EAG, JA6XED (549/449), JH0YSI (549/549), DL3YEE, OK1KIR (539/549), DK8VS, KD4LT

(559/559) dup, G3SEK (449/449), DL8OBU (439/539), F2TU (539/539), JA4BLC (539/559) and 7M2PDT (539/O) for 70x30 on 70 cm.

DL3EAG:

Stephan sends his apologies -- Sorry for the mixed up. I thought that both contest weekends were counted separately. [I think everyone understands. I guess, I should run at least a summary of the rules each year for new stations.] The next day right after the contest, Uwe, DJ6MB cleared up my misunderstanding. Due to some celebrations on Friday and Saturday I made only a couple of contacts. I contacted on 23 Nov OE5JFL (449/529), SM4IVE (O/529), OH2PO (O/O), JA5OVU (O/O) and DK3WG (O/O), and on 24 Nov OZ4MM (429/439). I heard 7M2PDT at moonrise, K1FO and N2IQU just before the contest ended, but the el was too high for me (ant was on the roof).

DL9NDD:

Guenther writes -- I ended the contest with a score of 107x40. Contest conditions seemed very good. I made the following initials: DL0EME, CT1DMK, K5AZU, RA3LE, PA2CHR, IN3KLQ, DL1EJA, F5SDD, KF0M, OE3JPC, IK0EQJ, HB9SUL, KB0HH, EA8/ON5FF, DK2GR who is using 4 yagis and 1.5 KW, HP3XUG and DK0NA. These bring me to initial #251.

EA3DXU:

Jose writes -- As in the 1st leg, conditions on 432 were excellent with many stations calling, especially good to Japan and the USA, and no problems with Faraday. The was quite different from the 2 m band where Faraday with the USA was negative all the time. My score on 432 was 30x16 with 2 x 38 el yagis and 800 w. I worked on 23 Nov JA5OVU (449/449), JA9BOH (O/O), DJ6MB (O/O) and K0RZ (O/O), and on 24 Nov W7CI (O/O) for initial #73, ON4KNG (O/O) and G3LTF (O/O) for a multiband of 65x35 or 227,500 points. Also please note I now have a new e-mail address, (much better rate!) at [Jose, EA3DXU](mailto:Jose.EA3DXU@comcast.net)

EA3UM:

Magi found -- Very high activity and good conditions, but not good weather. Sometimes a strong unknown noise source was also present. However, I enjoyed many FB contacts. My contest total was 58x26. I QSO'd on 1296, on 26/27 Oct YL3AG/A for initial #87, EA6ADW, F2TU, OE9XXI, SM4DHN, G3LTF, HB9BBD, ZS6AXT, W2UHI, F6CGJ, KB2AH, F5PAU, AA6WI, KD5RO, OK1KIR, OE5JFL, F1ANH, S59DCD #88, OH2AXH, JA4BLC, SM3AKW, G4DZU #89, F5PL, F6CGJ (repeat), OZ4MM, OK1CA, GW3XYW, DL9EBL, DL0SHF, F5AQC, N2IQU, HB9SV, IK3COJ, PA3CSG, JH5LUZ and DD1XF, on 9 Nov CT1DMK (O/O) #90, and on 23/24 Nov HB9BHU, K3EAV, LA8LF, W2UHI (Repeat), CT1DMK, F6KSX #91, G4CCH, VE4MA, JH3EAO, I2COR, DF3RU, DD1XF (Repeat), JA6CZD #92,

DH9FAG #93, DJ9YW, SM6CKU, DF9QX, VE1ZJ, K4QIF, SM2CEW, WB5LUA, K2UYH, WD5AGO, VE1ALQ, F6KSX (Repeat), HB9BHU (Repeat) and SM4IVE. My station was a 7 m dish, W2IMU feeder, 0.7 NF preamp with IC-R8500 receiver + DSP and aux. fil ter, and TH-328 1.5 KW PA with 24 m of 7/8" Helix cable.

F5PAU:

Francis worked the following stations on 1296 in the contest: OK1KIR, KB2AH, SM4DHN, F2TU, YL3AG/A, F6CGJ, W2UHI, EA3UM, EA6ADW, F5PL, G4FUF, K3EAV, AA6WI, WB5LUA, OE9XX, W7GBI, KD5RO, JA4BLC, JH5LUZ, DL9EBL, HB9SV, SM6CKU, ZS6AXT, DD1XF, OH2AXH, DL0SHF, SM3AKW, HB9BBD, F1ANH, G3LTF, G4DZU, OE5JFL, OZ4MM, DF3RU, OK1CA, F5AQC, WB0DRL, CT1DMK, K2UYH, N2IQU, WD5AGO, DK7LJ, F6KSX, S59DCD, HB9BHU, G4CCH, OE9ERC, LA8LF, I2COR, JA6CZD, JR4BRS, DH9FAG, IK3COJ, DF9QX, VE1ALQ, VE1ZJ, SM4IVE, K4QIF and SM2CEW for a total of 60x30. Francis uses a 6.7 m .5 f/d dish with W2IMU cir pol feed, DJ9BV hybrid and F1EHN tracking system. He has a 3 stage 0.32 dB NF FHX35LG LNA and TH293 1200 w PA with 22 m .5" Cellflex feedline.

F6KSX:

Jean-Jacques (F1EHN) reports on F6KSX's activity. During the 1st part of ARRL EME contest F6KSX was QRV on 10 GHz EME (see the Dec NL). Between contest weekends, we removed the 10 GHz equipment and we put in place a new station for the 23 cm band. We used the 3.3 m dish, a VE4MA type with circ pol horn, an NE32584 (0.3 dB NF) LNA, TH338 PA (500 w) just behind the dish (only 3 m of FSJ 4/50), a transverter 1296/28 MHz and a position ing system with F1EHN autotrack system (like the 3 cm station). After noise measurements, Sun (10 dB) and ground (6 dB), and echo testing, we made our 1st QSO on 17 Nov with F6CGJ followed by F5PAU. The reports were very good and the station seemed ready for the contest. During the 2nd part, we made 45x21 on 1296 MHz. We are very happy with this result. The station ran very well (despite the WX with wind, rain and black ice). All QSOs were on random. We worked on 23 Nov SM4DHN for initial #3, OZ4MM #4, F5PAU, OE9XXI #5, KB2AH #6, F5PL #7, HB9BHU #8, F6CGJ, K3EAV #9, KD5RO #10, OE9ERC #11, LA8LF #12, AA6WI #13, W2UHI #14, G4CCH #15, EA3UM #16, F2TU #17, OE5JFL #18, N2IQU #19, F1ANH #20, OH2AXH #21, DL0SHF #22, SM3AKW #23, HB9SV #24, JH3EAO #25, F5AQC #26, HB9BBD #27 and GW3XYW #28, and on 24 Nov SM6CKU #29, K4QIF #30, G3LTF #31, WD5AGO #32, F6CGJ (44/44) on SSB, K2UYH #33, ZS6AXT #34, OK1KIR #35, WB5LUA #36, SM4IVE #37, SM2CEW #38, VE1ALQ #39, VE1ZJ #40, JH5LUZ #41, DD1XF #42, IK3COJ #43, JA4BLC #44, DF9QX #45 and JH5LUZ (double). The operators were F1EHN, F1HAR,

F5HRY, F6BBO, F6CTW, F6DLA and F6ECX. QSL via F1EHN. F6KSX will be active again in March or April.

G3SEK:

Ian brings us up-to-date on his recent activity including the contest -- I worked before the contest on 30 Aug UR5LX and CWNR EA6/DF5JJ (449), on 31 Aug ON4KNG (439/439), WA9FWD (439/449), EA6/DF5JJ (449/549) for an initial #, K2UYH (549/559), W2CRS/O (O/O) #, VE6TA (O/O), PY5ZBU (O/549) #, JR9NWC, JA4BLC, JA5OVU and JH4JLV (O/O) #, and on 1 Sept SM2CEW (559/559) and W7FN (449/449). Flying home overnight from vacation meant that I operated only the final 3 hours of the 1st contest weekend. I worked on 27 Oct DF3RU, OH2PO, G4ALH, UT5DL, PA2CHR (O/O) #, UR5LX, DL9KR, HA1YA, SM4IVE, ON5OF, OE5JFL, YO2IS, G3HUL, F2TU, UA6LGH, DL9NDD, UT7VF, NC1I, K1FO and EA3DXU for 20x14 - that was fun, on 21 Nov JA9BOH - both checking our systems, and on 23 Nov OZ4MM, JL1ZCG, JA5OVU, G3LTF, DJ6MB, JH0YSI, JA9BOH, 7M2PDT, JS3SIM, 9M2BV, I5CTE, OM1TL, ON4KNG, HB9SUL (O/O) #, EA8/ON5FF (449/439) #, N2IQU, DL1EJA (O/O) #, VE1ALQ, I5TDJ, DK3WG, N4GJV, KA0RYT, I2COR, K0RZ, W9QXP, WB6IMC (449/449) #, K5GW, W7CI, G4FUF, W8MQW, G4RGK, SM3AKW, PA3CSG, K4QIF, DK8VS, K2UYH, KD4LT for a total of 57x29. On 30 Nov I added WD8ISK (O/O) # - a good signal, testing out the station that will go to N4UK in SC for the Jan ARRL VHF Contest. As of 30 Nov my totals are #255 ini tial, 53 countries and 40 US states.

G4FUF:

Keith says -- VSWR was a problems during the contest. We have had continual rain for almost a week. I was out in the yard until 2130 local time Friday replacing a water logged Helix cable. This was the 3rd one in 2 month's. A plug full of water one end, bone dry the other. But the whole cable was full of water between the outer and the jacket. I stripped the entire outer off carefully this time and not even a pin hole found. I am at a loss for an explanation. I will replace this lot with open wire over Christmas. Operating time was limited due to family visits. I also had a last minute trip scheduled for Munich on Monday morning, so I went QRT around 2000 on Sunday. My final score is 102x35. I am more than happy. New initials this weekend were UT7VF, UT5DL, WD5AGO, VE1ALQ, JH1OFX, W7CI, S57O, G3LTF, G4RGK and G4ALH for a total of #135 in 8 months operation. Heard/CWNR were HA1YA, HA1VHF (same?), VK2FZ/4, HP3XUG, JA6XED, JA2JI, 7M2PDT, EA8/ON5FF, IK0EQJ, SM2BYA, NA4N and KF0M. Would like skeds with any of these stations if they are available. The rig is 4 X 8 lambda HB yagis, TS850 + DSP599zx, MGF1302 LNA and 3CX1500A7 final.

G4RGK:

Dave found EME conditions on 432 the first night very good -- I worked 21 stations in the 1st 4 hours. Saturday evening the winds came up, and it became very difficult to keep the antenna on the moon, and I was eventually forced to QRT long before moonset. Sunday produced favorable faraday to EU/JA. I worked the 1st UR5LX, OH2PO, K4QIF, DL8OBU, SM4IVE, PA3CSG, N2IQU, WA4NJP, DL9NDD, DL9KR, OE5JFL, DF3RU, RA3LE, NC1I, KD4LT, K2UYH, F1ANH, K1FO, UT5DL, K5AZU, K5GW, OZ4MM, DL1EJA, DK3WG, ON4KNG, I2COR, IW5AVM, ON5OF, HA1YA, JA9BOH, JS3SIM, SM3AKW, PA2CHR, YO2IS and EA3DXU. After the 1st weekend, I decided to chop some of the trees back to improve my moonset window and managed to fall off the top of the ladder. I had a fairly soft (but painful) landing in a thorn bush! [Ouch.] During the Nov weekend I worked K5JL, W1ZX, K0RZ, W7FN, W8MQW, JA5OVU, SM2CEW, F5SDD, DJ6MB, G4ALH, I5CTE, N4GJV, G4FUF, W7CI and G3SEK for a total of 51x23. CWNR were UT7VF, 9M2BV, JL1ZCG, KA0RYT, OK1DFC, HB9SV, UA6LGH, W7GBI, F1FEN, K2OS, W2CRS, EA8/ON5FF (called for 20 min), JH0YSI, NA4N, HB9SUL, VK5MC, JA4BLC and G3HUL. This will be the last contest as the whole lot is now up for sale.

GW3XYW:

Stu was active on 1296 during the contest. He QSO'd on 26 Oct SM6CKU, F1ANH, OK1CA, OE9XXI, DD1XF, ZS6AXT, F6CGJ, EA3UM, YL3AG/A initial (#), EA6ADW #, OE5JFL, HB9BBD, F5PL, DL0SHF, KB2AH, G3LTF, DL9EBL and VE1JZ (?) - operation terminated early because of high winds, and on 23 Nov IK3COJ, LA8LF, OZ4MM, SM2CEW, DF9QX, G4CCH, OH2AXH, SM3AKW, N2IQU, F6KSX # and K3EAV - again forced to shut down because of wind. Stu ended with a score of 29x16 and his standing at initial #101 and DXCC 24. He had also planned to run some listening tests on 10 GHz during the contest, but storm damage (from the remains of hurricane Lilly) to his new 9' dish put these plans on hold.

HB9BBD:

Dominique writes -- The 2 contest weekends were again thrilling! I ended with 55x26 for 143,000 points. I am quite happy with my log this time. On the 1st weekend windy conditions made operating hard because my dish is freely running with the winds and manually controlled. On the 2nd weekend a snow storm filled up my dish on higher elevation - however no drop in signal strength was observed. No technical problems either, so I was there almost all time. A few initials were added: OK1CA #75, SM4IVE #76, F6KSX #77, K4QIF #78, S59DCD #79 and 4X6UJ #80. My log on 1296 was on 26 Oct F2TU (539/559), SM4DHN (559/529), EA6ADW (539/559), OE9XXI (569/579), KB2AH (579/559), EA3UM (529/449), YL3AG/A (539/559), ZS6AXT (529/559), W2UHI (559/549), F6CGJ (569/549), F5PL (519/519), VE1ALQ (549/559),

AA6WI (549/539), OK1KIR (519/549), KD5RO (419/539), N2IQU (549/549), JH5LUZ (519/539), OE5JFL (559/559), JA4BLC (519/559), SM3AKW (539/539), SM6CKU (529/539), OH2AXH (569/569), DL0SHF (569/569), F1ANH (569/559), F5AQC (529/559), G3LQR (419/539), F5PAU (579/449), DL9EBL (599/559), OK1CA (519/449), GW3XYW (549/559) and G3LTF (529/569), and on 27 Oct 27 IK3COJ (419/539), DD1XF (529/539) and PA3CSG (549/549), on 23 Nov OZ4MM (569/549), LA8LF (539/549), HB9BHU (529/439), K3EAV (419/449), SM4IVE (539/539), JH3EAO (519/549), JR4BRS (529/559), DF9QX (539/449), DF3RU (419/539), HB9SV (569/559), F6KSX (539/539), SM2CEW (429/559) and WB5LUA (539/549), and on 24 Nov K4IQF (559/549), WD5AGO (549/559), K2UYH (569/559), G4CCH (419/539), S59DCD (429/529), 4X6UJ (429/539?), G4DZU (519/539) and OE9ERC (579/549). Dominique needs a letter(s) from a University or similar institution, etc., on official letter head, for local authorities, which discusses the scientific value of EME experimentation.

HB9SUL:

Andy could not be QRV the 1st weekend, and thus made every effort to be on in the 2nd part. His efforts paid off. Using 4 x 38 el yagis he QSO'd on 70 cm DL9NDD, OH2PO, SM4IVE, HA1YA, WA4NJP, DK3WG, HB9SV, DL9KR, K2UYH, K4QIF, K1FO, SM2CEW, JA5OVU, UR5LX, OE5JFL, G3SEK, NC1I, OK1KIR, I2COR, IW5AVM, K0RZ, DJ6MB, OZ4MM, N4GJV, ON4KNG, N2IQU and W7CI for a score of 27x18. Also heard were VE1ALQ, DL1EJA, JA2KRW and K5GW (before the con test). He also QSO'd F1FEN on SSB before the contest. This brings my standings to initial #30 and DXCC 18. Andy will keep the array up even if he is abroad. He is interested in skeds but is frequently away on business. QSLs may be send to Andrea Bianchi, Via Arbostra 23E, CH-6463 Pregassona, Switzerland. His tel/FAX is +41919416730.

IK3COJ:

Aldo sends his QSO list for the ARRL EME Contest on 1296 MHz -- I have scored 37x20, and QSO'd on 26 October KB2AH, SM4DHN, F6CGJ, W2UHI, VE1ALQ, DL0SHF, YL3AG/A, EA6ADW, OH2AXH, OE9XXI, HB9SV, F1ANH, F2TU, DL9EBL, OZ4MM, F5AQC and OE5JFL, on 27 Oct N2IQU, EA3UM, WD5AGO, K2UYH, HB9BBD, ZS6AXT, PA3CSG for initial #65, F5PL and JA4BLC, on 23 Nov LA8LF, F5PAU, SM3AKW, GW3XYW, SM2CEW, SM6CKU, G3LTF and K4QIF, and on 24 Nov HB9BHU, F6KSX #66 and OE9ERC. I heard on 27 Oct JH5LUZ, on 23 Nov DD1XF, DF9QX, I2COR and G4CCH, and on 24 Nov VK5MC and JR4BRS.

JA4BLC:

Yoshiro EME report for Nov -- I had a business trip on the Nov Contest

weekend and managed to be QRV only late on Sun day. I came home on Sunday evening (1030 on 24 Nov) and soon after the dish was activated on 23 cm. I heard N2IQU calling CQ. Nothing was returned to my call and N2IQU disappeared. I then worked AA6WI(535/439) dup and JR4AEP(O/O). I switched to 432 and QSO'd 9M2BV (O/O), JA5OVU (559/559) dup, JO3RNL (O/O) for initial #237, JH4JLV (449/559), JS3SIM (449/559), UT5DL (449/549), DK3WG (559/539), DL9NDD (559/549), OZ4MM (O/559), DJ6MB (559/529) and ON4KNG (449/449). Back on 1296, I worked F6KSX (O/O) for initial #60, LA8LF (559/549), F6CGJ (569/449) dup, JR4BRS (449/449) and SM2CEW (559/559). My score on 432 was 31x15, on 1296 31x17 and on 2304 1x1 and total score of 352,600 points (including 2 m) which was a bit lower than last year. Before the contest I worked on 30 Oct DL4MEA (O/M) #236 on 432, and on 17 Nov on 1296 JA6CZD (O/O) for initial #59. My EME initial data is non on 432 initial #237, DXCC 42 and WAS 32, on 1296 initial #60, DXCC 20- and WAS 8, and on 2304/2424 initial #11, DXCC 8 and WAS 2. During the Nov Con test weekend Shichiro, JA6CZD worked more than 10 stations on 1296 [see Shichiro's report], Toshi JR4BRS and Ken JR4AEP also worked several stations on 1296. Toshi had used only 10 w when he called OE9XXI in Oct.

JA6CZD:

Shichiro is QRV again on EME -- Although I managed to set up a 23 cm system, it is not yet in perfect condition. I am going to improve it. But from now on, I will be able to work EME on the 23 cm band. The result of the competition was as follows: N2IQU, OE9XXI, SM6CKU, HB9SV, F5PAU, F1ANH, F6CGJ, SM3AKW, OE5JFL, LA8LF, OZ4MM, OE9ERC, OH2AXH, EA3UM and JH5LUZ.

JH3EAO:

Takao sends the following EME update -- I concentrated on 23 cm during ARRL Contest and ended with a score of 28x17. I QSO'd on 26/27 Oct W7GBI, AA6WI, KB2AH for initial #59, WB5LUA, KD5RO, JA4BLC, JH5LUZ, F5PL #60, YL3AG/A #61, F1ANH, OE9XXI, F6CGJ, SM4DHN, DL0SHF, OH2AXH, K2UYH and WD5AGO, heard were N2IQU, EA6ADW, ZS6AXT and F2TU, and on Nov 23 W2UHI #62, AA6WI, K3EAV, N2IQU #63, LA8LF, ZS6AXT, EA3UM, OZ4MM, HB9BBD, HB9BHU #64, HB9SV, F6KSX and K2UYH, heard were JA6CZD, W0KJY, JR4BRS, I2COR, SM4IVE, SM3AKW, DF3RU, OE9ERC and VK5MC. VK5MC was a new continent for me. I have been looking for him for 10 years, and I called him several times, but got only "QRZ" in reply. Shichiro, JA6CZD is now on 23 cm band with an all stainless-steel 7 m dish and OZ9CR amp. Toshi, JR4BRS also has come back with a new 5 m dish and water cooled dual 7289 amp. He said that he was surprised at OE9XXI's reception report in Oct, because Toshi's TX power was only

10 w at the time. Yasumasa, JH5LUZ escalated his TX amp with 16 x M57762 power module and has better echoes. I have been suffering from an unidentified source of noise on 23 cm for two years. I cured the problem just before Nov contest week end. The noise was 20 dB higher than the sun noise! I searched the noise source direction and finally discovered that it came from a neighbor's UHF-TV booster. The booster simultaneously amplifies BS-IF (1.2 GHz) and it had too much gain. After I cured the problem, ANT noise has reduced drastically and I can hear better echoes than before. This is why I heard so many stations in Nov - Hi! I find that activity is growing on 23 cm year by year. There is now QRM during Eur windows. I have an OZ9CR amp under construction, and will have a louder signal in the near future.

K0RZ:

Bill used fixed vertical polarity and worked the following 70 cm stations in the 2nd weekend of the contest: On 23 Nov DJ6MB, SM3AKW, ON4KNG, I5CTE, HA1YA, DK3WG, K5JL, OE5JFL, F5SDD, UT7VF, G3LTF, UT5DL, DL9NDD, UA6LGH, G4RGK, KB0HH, F1FEN, IW5AVM, DF3RU, EA8/ON5FF, DL6NAA, JA3IAF, JA2TY, JA2KRW, JR9NWC, JH4JLV, JH0YSI, VK5MC and I2COR, and on 24 Nov DK3FB, HB9SUL, SM2CEW, UR5LX, DL1EJA, G3SEK, ON5OF, N4GJV, G4FUF, W0KJY, HP3XUG and EA3DXU. Heard were HB9SV, OK1DFC, KA0RYT, VE1ALQ, G4ALH and JA6XED. Initials were made with DK3WG #221, F5SDD #222, EA8/ON5FF #223, DL6NAA #224, JA2TY #225, JH4JLV #226, HB9SUL #227, DJ1EAJ #228. Final score was 82 X 32. The effect of fixed polarity and low solar activity are very apparent when comparing the QSO'd stations listed above for the 2nd weekends of the contest with that of the QSO'd stations for 1st weekend when Bill was using fixed horizontal polarity. QSO'd in Oct were NC1I, N2IQU, W8MQW, N9AB, K2OS, VE1ZJ, DL9KR, K5WXN, K9BCT, K5AZU, OH2PO, OZ4MM, K1FO, WB0GGM, KB8ZW, K4QIF, WI7Z, WA7BBM, SM4IVE, K5GW, W2CRS, WB6IMC, W7CI, WA4NJP, WD5AGO, VE6TA, K2UYH, W7FN, JL1ZCG, KD4LT, W7HAH, ZS6AXT, W1ZX, W7GBI, JA9BOH, JA4BLC, 7M2PDT, W9QXP, JH1XUJ, JA5OVU, and 9M2BV. NA stations were worked and heard with horizontal polarity during the 1st weekend and European stations heard and worked with vertical polarity during the 2nd weekend. In summary: The Oct weekend with horizontal polarity: NA 29, EU 4, AS 7, AF 1, OC 0, SA 0. Nov weekend with vertical polarity: NA 5, EU 28, AS 6, AF 1, OC 1, SA 0. Bill is pleased that he gambled and rotated his 8 x 22FO yagis to vertical.

K1FO:

Steve found conditions on the days leading up to and during the Nov Contest weekend again excellent. On Thursday night libra tion fading was unbelievably low. On the 1st night of the contest activity and QRM was very high which

surprised Steve as he expected Eur activity to be low given the early morning hours. In the ensuing QRM mess several stations got away as he found he couldn't listen for more than 30 seconds without someone jumping on his frequency. He expected high activity on moonrise Saturday afternoon, but instead found a nearly empty band although signals were strong. Steve offers this little story on how frustrating contest operation can be: "For the 1st 2+ hours after moonrise I worked only a couple of dups. I was about to take a break for dinner when I finally started to get some answers to my CQ's. I then talked my wife into bringing my dinner up to the shack. It arrived, of course, right as I was trying to figure out S52CW's call. The result of trying to eat before my food before it got cold and send CW left handed without spilling the food must have made S52CW think that I was the biggest lid in the band." Later that night, OK1DFC was called many times without a response. After Steve heard DL9KR calling OK1DFC with only Y's is response he gave up knowing positively there was a receive problem at OK1DFC. Stations worked in Nov were on 17 Nov WA4NJP, on 18 Nov K5WXN and NC1I, on 20 Nov W8MQW, on 21 Nov K4QIF, on 22 Nov KA0RYT, NC1I and NA4N. Worked during the 2nd contest weekend were on 23 Nov DK3FB, DL6NAA, W1ZX, DL1EJA (dup), OE3JPC, G3LTF, F5SDD, VE1ALQ, PY5ZBU, G3LQR, DL3YEL, HB9SUL, EA8/ON5FF #502 - moved to new grid, JA2TY, JH0YSI, VK5MC, JA6XED (dup), DL8OBU (dup), OM1TL (dup), I5CTE, OZ4MM and S52CW #503, On 24 Nov N2HLT #504, SM2CEW, N4GJV, NU7Z - good to hear Rick back on 70 cm, WD8ISK #505, JA5OVU (dup), DK8VS and WA9FWD. Totals for the 1996 ARRL EME contest are: 116 x 38 or 440,800 points. The biggest disappointment in the contest was the growing number of stations who are refusing to work certain stations during the contest. Steve is deeply concerned that this sort of behavior is already negatively affecting EME activity. He worked after the contest on 25 Nov NC7K (O/O) #506, on 30 Nov JS3SIM, on 01 Dec JA5OVU, who has an excellent signal with his new 16 yagi rear-mount array. Steve was using a TS-870 during the 2nd contest weekend. A TS- 850S and the TS-870 were set up for rapid A-B switching. He found that the '870 without any external audio filtering heard about the same or slightly better than his TS-850S with an 80 Hz external audio filter. The TS-870 was clearly better than the TS- 850 when the '850 was used without an external audio filter, although the operation of the '870 is similar to the '850, it took some getting used to before it became an effective EME receiver. Steve has included a separate TS-870 review. In regards to Peter's (SM2CEW) comments on operating times. Ideally Steve would like to see convenient moon times for BOTH Europe and North America. He realizes that due to the local time difference this can be difficult to accomplish as no one really wants to get up at 3:00 AM. On 70 and 23 cm since over half of the active stations are located in Eur, this makes activity center around when the moon is up over Eur. It may be an illusion, but Steve and other NA stations have the impression that the peak

Eur EME activity is usually over by the time the moon rises in NA. Steve notes that in particular the contest hours of this year's ARRL EME contest made it difficult for U.S. stations. Although the local operating hours in NA were relatively convenient, by the time the moon rose over here it was already late in the evening in Eur and many of the more casual contest operators in Eur were shutting down for the evening. This was particularly noticeable on the 2nd night of the contest as 70 cm really emptied out about an hour after Steve's moonrise. Historically the best overall activity has occurred at 2 different local moon times. The 1st is when the moon rises in the early afternoon. This allows NA stations to work Eur who will operate in the late evening hours. Steve has found that some Eur stations even prefer to get on after 1100 PM local time to minimize TVI problems. On the other hand a review of past contest reports demonstrates that NA stations miss many Eur stations who just don't stay up late. The next best activity time is when the moon sets in the late morning. A common Eur to NA window is accommodated when NA Stations get up early typically around 4 or 5 AM. Although these times have been less common recently Steve remembers that in the late '70's and early '80's on 2 m he was always getting up early in the morning to operate EME. Steve's comments about activity times this summer were specifically in reference to a couple of consecutive weekends that had similar predicted conditions, but the weekend that had better local moon times was not chosen for the activity weekend. At the 1996 EME conference the group reviewed the possible 1997 SW dates and found few options available to accommodate convenient local operating times. Hence most of the 1997 dates were chosen, as Peter has suggested, based upon the best predicted moon conditions. In other activity notes: W6JKV, Jimmy has moved to Texas and will be back on 70 cm EME eventually, but it may be a while. Mike K6MYC, who has been on 2m EME since the 1960's is getting on 70 cm EME. He has 4xM² - 13 wl yagis and an 8938 PA, but does not have elevation. He will have 8x13 wl Yagis with elevation on in a few months. Mike is located in Fresno, CA in DM06dx. He also notes that in the 3/96 issue of DUBUS, JE1AAH's "Microwave Japan" report lists JH3ERQ, JH5LUZ and JN1CSO as 432 MHz stations who have recently received 500 w licenses. JA2ADH and JA0VI are listed as having applied for 500 w power permits on 70 cm. Toshihio notes in his DUBUS article that the 500 w VHF/UHF license no longer requires special instructions or a on site inspection visit. This should help to increase EME activity in Japan. Unfortunately he also notes that QRM problems on 432 MHz from packet and FM operation are common in most metropolitan areas. 70 cm EME totals for K1FO are #506 initials, 49 states and 72 DXCC.

K1RQG:

Joe writes that his 432 antennas are still badly damaged and does not think he can repair them until spring. He is still planning to have a 20 m beam up by the

1st of the year for the stations to the West. Joe reminds all 20 m NET participants that the current timeline for net operation is as follows: During standard time (Winter months), on Saturday the NET will begin at 1500 (z) for stations in Eur and to the East, continuing on for Stateside stations beginning at 1600 and until the net completes. Please try to warm up the frequency with informal chatter on Saturdays prior to 1500. This will be a big help in reducing conflicts, etc. The same will hold true during Daylight saving time on Saturdays. On Sundays during standard time (Winter months) still warm up the frequency prior to 1500, but at 1500 we check to see if the VARO group is on and let them run to completion, then we pick up the Eur stations 1st, then to Stateside. During Daylight saving time (Summer months) Sunday will be the same sequence as Saturday. Any stations that would like to receive NET NOTES from Joe should e-mail him at [Joe, K1RQG](mailto:Joe.K1RQG) with that request. The Notes are usually sent out shortly after the net is closed on each day.

K4QIF (K4QI)

Rusty writes -- Conditions for the 2nd weekend of the contest seemed pretty good here but no quite as good as Oct. Echoes were consistent and very strong all weekend with polarization being well defined. There were a lot of very strong signals on both 432 and 1296. Probably the strongest on 432 were OH2PO and N21QU. I was hearing OH2PO at moon rise on 24 Nov with my tropo antenna (4 x 30LBX yagis) running (569). I worked on 432, on 21 Nov WB6IMO and K1FO, on 23 Nov in the contest on 432 VE1ALQ, G3LTF, PA3CSG, K5JL, NA4N, N4GJV, RA3LE dup, W9QXP/7, EA8/ON5FF, PA2CHR, F5SDD, OK1KIR, G3LQR, DK3FB, HB9SUL, W0KJY, WA4NJP, JA6XED, VK5MC and JH0YSI, on 23 Nov, on 1296 F1ANH, SM4DHN, N21QU, F6CGJ, OH2AXH, LA8LF, SM6CKU, F5PL, SM3AKW, ZS6AXT, IK3COJ, G3LTF, F6KSX, SM2CEW, OE5JFL, K3EAV, WB5LUA and EA3UM, on 24 Nov on 1296 S59DCD, G4CCH, OE9XXI, G4DZU, KB2AH, HB9BBD, W2UHI/8, VE1ZJ, K2UYH, AA6WI, OK1KIR, VE6TA, VE1ALQ, DL0SHF, F5PAU, OZ4MM, WD5AGO, KD5RO/2, KB3PD, WA4NJP, VE3BQN and WA8WZG, and on 23 Nov, on 432 G3SEK, KD4LT, I5CTE and WD8ISK for 99x34 on 432 and 40x23 on 1296. My 1296 operation on the 2nd night started at the horizon, but I am looking through a number of leafless trees for about an hour. They really took signals down, but once the Moon cleared those trees, signals and echoes were very loud. I missed the Asian window on 1296. I have a new call sign, K4QI, and will be using it in the future. I hope it doesn't generate too much confusion.

KB3PD:

Rick worked the following on 1296 in the contest: 1st weekend, 26 Oct 0215 KB2AH and 0220 OE9XXI, on 27 Oct 0148 K2UYH and 0236 F6CGJ for initial #26, on 23 Nov 0227 N21QU, 0259 KD5RO/2 and 0316 OZ4MM, and on

24 Nov 0318 DLOSHF, #27, 0324 OE5JFL, 0335 WD5AGO and 0404 K4QIF (K4QI) for #28 and state #14 on EME. Total score 11x7 - 2 more than last year - for 7700 points. Before the contest Rick added on 25 July W2UHI #24 and EME state 12, and on 25 Oct WA4NJP #25 and EME state 13. If everything goes as planned Rick should have a 16' dish up for the summer and become active on both 1296 and 432. He is looking for skeds up till Jan/Feb '97 on 1296.

KD4LT:

Scott found conditions very good on the 2nd contest week end. Again, he did not have much time for operating. Stations worked are DL1EJA for an initial #, HA1CA, WA4NJP, DK3WG, EA8/ON5FF #, W7FN, W9QXP, G3LTF, DJ6MB, OZ4MM, I2COR, UR5LX, W2CRS, KA0RYT, W1ZX, SM2CEW, K4QIF #, ON5OF, VE1ALQ, G3SEK and SM3AKW. Scott's contest score is 64x33 for a total of 211,200 Points. Not too bad for a total operating time of 7 hours. His initial count for the contest is 12. The new 6.7 m dish for 23 cm is nearing completion. The dish is covered and the mount was completed by Ray, WA4NJP. The new HPA is complete and being tested. After a few hours of building the control logic, the project will be complete and give Scott a new band and goals. Scott's 70 cm totals are #294 initial, 46 DXCC, 33 WAS EME.

KD5RO (K2DH):

Dave's update for the newsletter follows -- I was active both weekends of the contest, but on 23 cm only. Although Murphy visited and kept me at QRP levels both weekends, I still managed the best score I've ever had. I ended up with 41x24 for a final score of 98,400. This is about twice last year's score, with no changes to the station except more time spent on the air. I picked up 7 initials, bringing my total now to #78. I had fully intended to have the 6 tube amp finally running for the contest, but the 1st weekend the driver failed, so I was running the big amp, but at low power (about 160 w). The 2nd weekend, the driver was fixed, but I sprung a leak in a water jacket just a few hours before the contest started. This filled the entire cavity with water, and let me know it with a huge bang! I had to take the whole thing apart and carefully dry it out, then put it all back together and see what tubes (if any) survived. I didn't do any of the rebuilding until after the contest ended Sunday, and of course, Monday night it all came right up and put out a very nice 600 w - just a little too late!!! So, I operated the 2nd weekend with the single tube driver amp tuned back up to 180 w as I have been running for some time. I want to thank all those who heard me and took the time to "struggle" with a weak one. I was surprised by how many of the big guns I didn't work. Such stations as DL9EBL, OE9ERC, VE4MA, SM2CEW and others were heard well and called many times to no avail. On the other side of the coin, I got lots of answers to my CQ's. Oh, well. Watch out for next year! Bad WX prevented me from echo testing the new amp until Sunday

morning (1 Dec). I was very pleased with the results - my CW echoes were about 16 dB out of the noise, and my SSB echoes were easily copied. I believe these numbers are consistent with other stations similarly equipped (600 w and 5.5 m dish). On another subject, there has been some recent discussion of a 3rd contest weekend for microwave contacts. I would support such a change, and I think it would really promote serious microwave activity by the big guns, who right now have little incentive to go to the effort of changing feeds for the higher bands. A third weekend of just microwave activity could solve this problem. It would allow the big guns extra band multipliers in their quest for victory, and allow the casual operator an opportunity to work people on the higher bands. Multiband operators could score their operation just as is done now. The last piece of news is that my call, KD5RO, is now defunct. I applied for, and got, my 1st choice of vanity calls. I am now officially (since the end of the contest) K2DH. I'll obviously be signing that call from now on. At least now people won't have any trouble with confusing my call (KD5RO) with reports (RO) Hi Hi.

LA8LF:

Anders was not on in the 1st part of the EME contest. Conditions and activity on 23 cm in the 2nd part seemed fair. Fortunately WX improved from rain, snow and icing the last 3 days before contest, and both Saturday and Sunday were fine. I worked 55x24 with 5 initials. I am now to initial #91. I QSO'd the following: SM4DHN, W2UHI, KB2AH, AA6WI, F2TU, OZ4MM, EA3UM, VE1ZJ, HB9BBD, N2IQU, F6CGJ, OE9XXI, F6KSX for initial #87, KD5RO, K3EAV, HB9BHU, F5PL, VE4MA, F5PAU, OE5JFL, JH5LUZ, OH2AXH, DL0SHF, SM6CKU, ZS6AXT, JH3EAO, DD1XF, SM3AKW, DL9EBL, DF3RU, DF9QX, IK3COJ, F1ANH, G3LTF, JA6CZD #88, SM2CEW, GW3XYW, G4DZU, DJ9YW, F5AQC, HB9SV, I2COR, K4QIF #89, K2UYH, CT1DMK #90, WB5LUA, G4CCH, and the next day VE1ALQ, WD5AGO, OK1KIR, S59DCD, VE6TA, SM4IVE #91, OE9ERC and JA4BLC. CWNRR were ON5RR, W0KJY, VK5MC and JR4BRS. I had 7 hours on the Moon Sunday evening, but worked only 2 stations. Missed at least 12-15 of the stations that were active the 1st part and never showed up in the 2nd part of the contest. It would be nice if we could have many more active stations from stateside.

N4GJV:

Ron reports that he has been plagued with problems, unrelated to amateur radio, which have curtailed his EME activities, and, that after a long hiatus, he was looking forward to being QRV for the 2nd weekend of the ARRL EME contest. His system had been idle for some 6+ months, and he didn't find time to test it until the day before the contest. It was at this time that he learned that the array's elevation drive had suffered some heretofore undiscovered storm

damage, resulting in an all-out, last day effort to effect repairs. The efforts were successful, but resulted in very little time for sleep during the night preceding the contest. As a result, he was only able to muster a part time effort, punctuated by long time-out periods, for badly needed sleep. Ron found conditions to be generally fair to good, but he found that polarity cooperation, with fixed polarity stations not located in NA, to be non existent. He found this to be particularly true of the Eur yagi stations, who seemed to be consistently hearing Ron's signal well, but not vice-versa. Ron reports QSOs, during the weekend with RA3LE, KA0RYT, K5WXN, W8MQW, K5GW, SM4IVE, K4QIF for an initial #, WI7Z, OH2PO, K9BCT, DL9KR, WD5AGO, DL9NDD, DF3RU, G3LTF, VE1ALQ, K2UYH, JA3IAF, JA9BOH, JA50VU, WB6IMC #, NC1I, JA2KRW, JH4JLV, WA4NJP, W9QXP, JS3SIM, G3SEK, ON4KNG, G4RGK, W2CRS, NA4N #, N2HLT #, HB9SUL #, EA8/ON5FF, F1FEN, K0RZ, PA2CHR #, OZ4MM, K1FO, HA1YA, DL1EJA #, SM2CEW, W7FN, SM3AKW, W7CI, DK3FB, WD8ISK #, OE5JFL, W7GBI, KF0M #527, WB0GGM, HP3XUG, JR9NWC, 7M2PDT, UR5LX, G4ALH, I5CTE and ON5OF. He also reports that he had a partial QSO with DL3EAG, which was frustrated by QRM and very poor pol alignment. Heard only were PA3CSG, G4FUF and OK1DFK (both called without success), N2IQU, and others. Ron hopes to be QRV during the Dec SW, and would like skeds with G4FUF, OK1DFK, DL3EAG, JH1EFA, JA2TY, W6WE, and W6VPH. He states, however, that the prospects for much post new year activity, appears to be very gloomy.

NA4N:

Greg is finally QRV on 432 and writes -- It took me a long time, but I made it. My 1st contact was on 1 Sept with UR5LX ... WHAT A GREAT DAY. I contacted on 2 Sept K1FO (459/449), on 20 Oct KD4LT (559/O), on 22 Oct N2IQU (559/549), on 24 Oct K4QIF (559/559), on 25 Oct K1FO, K4QIF and NC1I (559/559), and in the contest K1FO, K3LFO, N2IQU, OH2PO, SM4IVE, K5GW, NC1I, OE5JFL, K4QI, K5AZU, K2UYH, OZ4MM, N4GJV, DL9KR, SM2CEW and W1ZX. I had problems with polarity. I run 8x22 el K1FO antennas and about 1200 w, horizontal. I didn't hear many Eur or many stations from the west. I don't have an Asian window because of trees to the west. This was my 1st EME contest and I'm looking forward to many more. My e-mail address is na4n@citizen.infi.net, tel 540-361- 3681, (6608 Kelly Rd. Warrenton, VA 20187).

OE9XXI:

Peter had heavy snow on 23/24 Nov which prevented him from changing feeds to 13 and 6 cm. His operation was thus limited to 23 cm. He worked on 1296 during 2nd leg of the contest OZ4MM, OE9ERC, G4CCH, VE6TA, F6KXS (559/569) initial (#), S59DCD, 4X6UJ dup, LA8LF, W0KJY, HB9BHU,

VE4MA, VK1VP, DD1XF, JA6CZD (559/569) #, DF9QX, ON5RR dup, SM2CEW, K4QIF, G4DZU, W4OP (O/O) #, WA7BBM, JR4AEP, JR4BRS, SM3AKW dup and G4CCH dup. Heard were WA8? at moonset in the ground noise. All contacts were made on random. My final score was 73x34 for 248,200 points.

OK1KIR:

Tonda, OK1DAI reports on his groups contest activity -- On 432 in both parts of the ARRL Contest we worked the following initials: DL1EJA, OK1DFC, K4QIF, HB9SUL and EA8/ON5FF for initial 324, DXCC 62 and field 43. New stations heard were DL0AR, G0BPU, IK0EQJ, JA2CHR, JA6XED and JH4JLV. On 1296 before the contest, on 25 Oct we worked at 2031 YL3AG/A (549/539) for initial #132, DXCC 32, KO/28/ field and the 1st YL-OK 23 cm QSO. In the contest we worked OE9XXI, F5PL, YL3AG/A, SM4DHN, F5PAU, EA6ADW, VE1ALQ, FP6CGJ, F2TU, W2UHI, KD5RO, HB9BBD, KB2AH, EA3UM, AA6WI, N2IQU, K2UYH, OK1CA, F1ANH, WD5AGO, OH2AXH, ZS6AXT, K4QIF for initial #133 and new state 22, LA8LF, F6KSX #134 and OE5JFL. We heard CT1DMK, DF3RU, DL0SHF, F6AQC, G3LTF, G4DZU, IK3COJ, K3EAV, KB3PD, OZ4MM, QRZ S59DCD, SM3AKW, SM6CKU and VE1ZJ. On 5760 MHz, We worked on 26 Oct at 1853 DJ7FJ (O/M) - our own echoes were OK and Moon noise 1.2 dB. On 10,368 MHz we had a partial on 23 Nov at 1820 DJ7FJ (M/-) due to problems with our TX at low temperatures. Our standing are now on 432 initial #324, DXCC 62, States 43 and fields 43; on 1296 #134, 32, 22, 28; on 2300 31, 16, 8, 12; on 5760 7, 6, 1, 4; and on 10,368 10, 9, 2, 7.

ON5RR:

Marc reports on his Nov contest activity -- The weekend started rather badly. During the night of 22/23 Nov there was much wind and I did not put my dish up. (It is on a 12 m high mast. When I am not active the dish is resting at the bottom of the mast in the garden. On Saturday evening the wind dropped and we able to become QRV at about 1900. This time I was running about 30 w to the dish. I worked OZ4MM (529/549), HB9SV (449/549), F6CGJ (339/559), OE5JFL (449/549), OE9XXI (439/539), OE9ERC (339/539) and KB2AH (439/529). I also heard OH2AXH (559), F5PAU (549), SM4DHN (549), F5AQC (539), LA8LF (539), DF9QX (529), F1ANH (539) and N2IQU (549). At about 0230 the wind got stronger and started to tilt the dish over her balance point. This blocked the actuator. It took me nearly 3 hours to get the elevation system unlocked, just in time to lower the antenna system. (It gets very cold on a mast during the night when it is freezing - Hi!). I will now start to improve the whole system, especially to get more power. Some improvements on the tracking should also be done.

ON6JY:

Luc is trying to get started again on EME after a divorce and change of location. He plans to build a 5 m dish (4 m covered at the beginning because of high wind at his location) for 23 cm and 13 cm. He have a 100 w PA for 13 cm and YL1050 for 23 cm. He is also looking for an e-mail address for K1FO. (Tel 32 87 558290, 32 87 558290, Sema 32 49 124371 and e-mail at: [Luc](#) or [ON6JY](#)).

OZ4MM:

Stig reports -- I started operation on Saturday, 23 Nov on 1296at and worked OE9XXI, N2IQU, KB2AH, AA6WI, F6KSX #110, KD5RO, F5PL, HB9BHU, W2UHI, LA8LF, HB9BBD, G4CCH, K3EAV, S59DCD, W0KJY, VE6TA, VE3BQN for initial #111, SM4DHN, CT1DMK, OE9ERC, SM4IVE, KB3PD, OE5JFL and JH3EAO. At moonrise, 1500, I changed to 432 and added JH0YSI for initial #105, DJ6MB, JA2KRW, G3SEK, JA2TY #106, G3LTF #107 and HA1YA, then back to 1296 at 1712 for JH3EAO, VK5MC, JR4BRS, JH5LUZ, DF9QX, ZS6AXT, DF3RU, I2COR, DL0SHF, DD1XF, DH9FAG #112, SM3AKW, JA6CZD, ON5RR, GW3XYW, G3LQR, HB9SV and DJ9YW, again to 432 at 2230 for KD4LT, VE1ALQ #108, DL1EJA, EA8/ON5FF #109 and DXCC 28, KA0RYT, K1FO, UA6LGH, NA4N #110, I5CTE, W2CRS, K5WXN, SM2CEW, DL3YEL, IW5AVM, HB9SUL #111, HP3XUG #112 and DXCC 29, W1ZX, G4FUF and N4GJV. On 24 Nov I started stayed on 1296 at 0242 and QSO'd K2UYH, SM2CEW, K4QIF and WD5AGO, and from moonrise on Sunday, on 432 DL8OBU, DL6NAA, OE3JPC #113, YL3AG #114 and DXCC 30, JJ1NNJ #115, IN3KLQ #116, DL3EAG #117, DK3FB, OM1TL, S52CW #118, JA4BLC, UT5EC, DK8VS, VK5MC, ON5OF and last PA3CSG. Heard on 432 were OK1KIR, F1FEN and CWNR OK1DF. On 1296 CWNR 4X6UJ, DL9EBL, VE1ZJ and OK1KIR. This should bring me to 88x34 on 432, and 59x29 on 1296 and 4x4 on 2304 for a final result of 151x67 for 1,011,700 points. On 18 Jan (Saturday) I plan to be on 2304 and I'm looking for activity. I will TX at 2304 and receive on 2304/2320/2424 and am looking for skeds.

PA3CSG:

Geert sends the following info -- I was active in the contest and produced around 20 QSOs on 23 cm and about 40 on 70 cm. It used to be better, but I am still happy with the results. During the 2nd part I was ill and only on for a limited period. DL1EJA had a good signal with my old 16 yagi array. The antenna is owned by the technical high school where he setup the antennas as a kind of examination project. I believed he did better than I ever did. The compilation of past NL technical material is still available. Gerard, PA0BAT showed interest in the book and asked for a copy which I did not have available. I sent him the original papers and he produced a few more copies. These are available from him at \$US30 - sent cash, no checks, to (Gerard Geesink

PA0BAT, Generaalsweg 6, 7055 AC Heelweg, The Netherlands). PA0BAT is setting up for EME on 23 cm.

W6/SM0PYP:

Paul e-mails -- I now have my 10' dish, and was hoping to be QRV on 10 GHz during the 2nd part of the contest, but my TWTA is not working. The problem is in the power supply. I hope to have it fixed soon and be QRV.

SM2BYA:

Gudmund writes -- After my transient appearance on 432 in the Oct '94 contest, I have not been active off the moon for 2 years. A number of commitments on the job have kept me so busy that I have simply not had time to fire up the rig. Among these, there is one that might be of interest to the EME crowd. In Aug '96, we officially opened a new incoherent scatter radar station for ionospheric and magnetospheric science studies on the Norwegian island of Spitzbergen (79 degrees N). The setup should be enough to bring tears to the eyes of any EMEer. What do you think of 500 cool kilowatts at 25 % duty cycle at 500 MHz, into a 32 m, 42.5 dBi Cassegrain dish, a cryo-cooled front end that measures in at 11 K flange temperature and a fully digital six channel receiver back end followed by 200 MFLOPS worth of DSP based post processing power feeding into a 6 processor SparcServer 1000? We can record density, temperature and velocity profiles through the whole ionosphere, up to about 600 km altitude. The most interesting thing about incoherent scatter is that we work with very low SNR. At 600 km it is typically about 2 % (- 17 dB!), but the analysis routines still converge. Actually, anything above about 25 % SNR does not improve the data quality very much at all... There are lessons to be learned from this for the EME crowd, but I shall have to come back to that some other time. Anyway, working with this kind of hardware at least you work with weak signals all the time, so you never suffer from abstinence symptoms, even if your rig is collecting dust, HI. Now that the radar is fully commissioned, I look forward to more spare time and will be more active from now on. This year, I again operated the Oct session of the contest on 432 from my SM3 setup. Equipment remains pretty much the same as 2 years ago, (8 x 21 Tonnas and MGF 1412 at about 38 K). I managed to increase the TX power about 2 dB (from 180 to 270 watts) by digging out an age-old T282 transmitter that I partially converted to 432 many years ago, but then gave up. This is a 225 - 400 MHz monster from the early 1950s, ending in PP 4CX250Bs. I seem to remember that some people used T282s for the very 1st Arecibo EME tests back in 1965. The final tunes to 432 as it comes, but the efficiency is lousy. Mine runs around 39 % or so, but as long as it puts out more than the alternative and doesn't melt in the process, I don't complain. Activity seemed to be down a little from 1994, and I worked only 12 stations. Of these, only OZ4MM insisted on calling me SM2BYA. Heard were another 30 or so stations. I was sorry not

to be able to work G3SEK, who put in a very nice signal on Sunday night, but the kids were sleeping in the same room where I have the rig, and the T282 blower makes a noise that can raise the dead. This time I used a DSP 59+ filter for the 1st time. It made for an interesting experience. After a while I left the bandwidth setting alone at 75 Hz and did not reduce it below that again for the whole contest. For the really weak signals I actually switched over to my old three stage analog audio filter, which is about 80 Hz wide at the -3 dB points. The difference between the 2 is subtle but important. Whereas the bandpass filters in the 59+ appear to have extremely sharp skirts, the analog filter is Gaussian! It makes for a world of difference in terms of the impulse response of the filter. In simple terms, Gaussian filters have a Gaussian impulse response, i.e., they don't ring. Anything else rings to a degree, the steeper the filter skirts the more it rings. This has of course nothing to do with whether the filter is digital or analog; it works the same in both domains. I plan to implement a few really narrow Gaussian filters on a Texas Instruments DSP evaluation kit soon, just to have a chance to hear the difference. Possibly the most important improvement offered by the 59+ was that, by sitting at the speaker output, it took out all wideband IF/AF noise added by the RX stages following the IF filters. Even though weak, this can be very fatiguing.

SM2CEW:

Peter managed to put in more time the 2nd weekend of the contest than the 1st with most of this time was spent on 432 and 1296 -- I operated multiband as usual, on 144, 432 and 1296. My total score was 175x81 for 1,417,500 points. 432 was 61x27 and 1296 was 30x18. This is my best QSO total on 1296 ever, even though I only operated on 1296 the 2nd weekend. The following stations were worked in the contest, on 432 SM4IVE, DL9KR, OE5JFL, UT5DL, OH2PO, SM3BYA, DF3RU, JA9BOH, JH4JLV, JR9NWC, YO2IS, EA3DXU, G4ALH, 7M2PDT, UR5LX, JA4BLC, I5CTE, JS3SIM, JA5OVU, S57Q, DL1EJA for initial #314, JA2TY #315, JA2KRW, PA2CHR, DK3WG, JL1ZCG, JH0YSI #316, G3LTF #317 (new QTH), DL9NDD, G4RGK, DJ6MB, HB9SUL, HA1YA, UA4API, ON5OF, UT7VF, EA8/ON5FF #317 (new QTH), K0RZ, OZ4MM, K5WXN, G4FUF, I2COR, KD4LT, HP3XUG, N2IQU, K1FO, W7GBI, NA4N #318, W8MQW, KA9RYT, WB0GGM, N2HLT #319, UA6LGH, W9QXP, N4GJV, NC1I, WB6IMC, SM3AKW, W7FN, ON4KNG and DL3YEE; on 1296 F6CGJ, LA8LF, ZS6AXT, SM3AKW, OE5JFL, SM6CKU, OH2AXH, IK3COJ, GW3XYW, K4QIF, K2UYH, G3LTF, HB9BBD, W2UHI, OE9XXI, KB2AH, EA3UM, SM4IVE, F6KSX for initial #87, OZ4MM, AA6WI, N2IQU, DL0SHF, WD5AGO, F5PAU, F1ANH, F2TU, JH5LUZ #88, JA4BLC and F5PL. To sum up the contest, lots of fun!!!

SM3AKW:

Karl reports on both Oct and Nov -- I made 71 QSOs in the 1st part; on 2304: (2 QSOs) OZ4MM, WB5LUA and CWNR W4HHK; on 1296: (18 QSOs) JA4BLC, EA3UM, YL3AG/A, SM6CKU, OH2AXH, F6CGJ, DL0SHF, HB9BBD, SM4DHN, EA6ADW, F1ANH, OE9XXI, ZS6AXT, G3LTF, F5PAU, OE5JFL, PA3CSG and G3LQR; on 432: (43 QSOs) SM4IVE, N2IQU, F1ANH, UT5DL, DF3RU, DL9KR, WA4NJP, K4QIF, K5AZU, DL9NDD, K2UYH, UR5LX, 9M2BV, OH2PO, OZ4MM, JA9BOH, RA3LE (where have you been?), DL1EJA, DK3WG, NC1I, HA1YA, I2COR, ON4KNG, K1FO, K5GW, F5JJI, DJ6MB, G4ALH, G4FUF, S57Q, KB8ZW, W7FN, OE5JFL, DF6NA, JS3SIM, UT7VF, YO2IS, G4RGK, DK0OG, ZS6AXT, UA6LGH, EA3DXU and ON5OF. In Nov I started out on 432, as my 1296 window was closing, but 432 was really off for horiz pol. I will have to fit my 5 m dish with a 432 feed to improve my contest ability. 1296 was nice with good activity, but I had less power as my Y831 driver died and that cavity also is my 2304 PA, so didn't go on 2304 in this part. I QSO'd on 23 Nov, on 432 at 0009 K0RZ, 0120 K5JL, 0317 G3LTF, 0325 W1ZX, 1445 JH0YSI, 1500 7M2PDT and 1527 JA5OVU, and on 24 Nov at 0325 W7CI, 0331 G3SEK, 0401 N4GJV, 0406 SM2CEW, 1500 UT1PA, 1540 JA2KRW, 1632 DL8OBU, 1658 PA3CSG, 1720 G3LQR, 2024 I5CTE, 2035 PA2CHR, 2257 VE1ALQ and 2355 KD4LT, on 23 Nov, on 1296 at 1640 JH5LUZ, 1649 LA8LF, 1704 F5PL, 1709 DL9EBL, 1743 HB9BHU, 1848 F6KSX, 1901 F5AQC, 1912 OZ4MM, 1917 JA6CZD (Good to hear you again!), 2015 IK3COJ, 2023 SM2CEW, 2133 HB9SV, 2225 GW3XYW, 2231 N2IQU, 2247 KB2AH, 2253 K4QIF, 2328 K2YUH and 2357 WB5LUA, and on 24 Nov at 0007 DD1XF, 0027 VE1ALQ, 0039 WD5AGO, 0054 K3EAV, 0102 AA6WI, 0107 W2UHI, 0147 VE1ZJ, 0220 SM4IVE, 1912 F2TU, 1922 DF3RU, 1948 DF9QX, 2237 OE9ERC and 2324 G4CCH. CWNR was S59DCD. Over all I worked on 1296 49x23, and on 432 63x26 for a total of 126x59 or 743,400 points multiband (including 2 m).

UR3EP,

Vladimir is a newcomer to 70 cm EME located in KN78wm. He made his 1st QSOs with DL9KR, UR5LX and SM4IVE for initial #3 during the contest. He is using 8 x 10 lambda BV yagis and a 150 w GI7B PA. His address is POB 447, Pavlograd-5, 323000, Ukraine.

UR5LX:

Sergej finished 9th year on 432 EME by overcoming the 300 initial barrier, and a 100 calls (100*39) in ARRL Contest. He logged initials with JH1EFX, JA2TY, G3LTF, UR3EP, HB9SUL, EA8/ON5FF and S52CW #304. Sergej is now up to DXCC 54 and WAS 36.

VE1ALQ:

Darrell's contest results for 1996 follow -- Again I was able to stay with the

Moon for the 1st night in Nov, but only worked from 2200 on the 23 Nov to 0300 24 Nov. So I again lost 6 hours of moon time. WX and conditions were very good from this QTH. I can not sleep during the day, so if WX does not get me, lack of sleep does, hi. I found conditions on 23 cm excellent during both halves of the contest. Conditions on 70 cm were also very good during the last half. I found that all stations out of NA for the most part were exactly vertical, or what appeared to be circular, no peaking between horiz and vert at all. Thanks to Mark, N2IQU, I was able to get my 8938 amp running on 70 cm for the last half of the contest. I completed construction of the amp only to find my original 8938 with 43 K hours on it was no good. Mark sent me a "new" 8938 and after a couple of minor changes and some tweaking everything worked very well. The amp is a K1FO design from ARRL UHF/Microwave Projects Manual. My results are on 70 cm 51x22 (14 countries and 8 North America call areas), with 28 initials, after being off of 70 cm for a couple of years. Total 432 initials now stand at 112. On 23 cm they are 38x21 (13 countries and 8 NA call areas), with 5 initials. Initials on 23 cm is now at #77. My final contest score was 89x43 for 82,700 points - my best year yet.

VE4MA:

Barry focused on the microwave bands in the contest -- My activity concentrated at trying to use all the higher bands along with WB5LUA, but our efforts were thwarted by bad WX at Al's end. I was very disappointed at the low activity levels on 13 and 6 cm. There is a major problem with trying to coordinate which band and when everyone will get on. Certainly if you want to "compete" in the contest using the higher bands is a significant penalty under the present ARRL contest structure. Having the contest only on 2 bands per weekend (as I believe the REF contest has) makes a lot of sense! I only operated for this one weekend and on 23 cm scored 13x10 (1.5 hours of fun), on 13 cm 2x2, on 6 cm 2x2 and initial #7 with DJ7FJ (M/M). WB5LUA was (449) on 9 cm but WX resulted in no QSO. We were also going to QSY to 33 cm - (It has been 5 years since there has been any activity there!) - but the WX also prevented this.

VE6TA:

Grant had a great time during the EME contest and managed to break his goal of 100 K points, despite the most severe Nov WX in memory (18" of snow and -35 deg temps) -- I was active on 3 bands, and Murphy stayed away for the Eur windows at least! On 26 Oct I was on 432 with my 5 m dish and 750 w PA. I worked N2IQU (559/449), K1FO (549/439), OE5JFL (559/549), SM4IVE (569/O), DL9KR (569/559), K4QIF (549/439) for initial #44, UR5LX (O/O), NC1I (559/539), OH2PO (O/O) #45, K2UYH (549/539), K0RZ (449/449), W7FN (O/O), K5GW (O/O) #46 and JA5OVU (O/O) for a total on 432 of 14x12. On 23 Nov I was on 1296 with the same dish, a 250 w PA and a new

hybrid, and was hearing my echoes for the 1st time! I worked OE9XXI (559/449), SM4DHN (549/439) for initial #44, OZ4MM (549/529), N2IQU (549/539), F6CGJ (549/449), KB2AH (559/549), AA6WI (539/339), W2UHI (339/449) and OE5JFL (559/549). On 24 Nov I remained on 23 cm and worked OH2AXH (549/449) #45, LA8LF (449/449), DL0SHF (449/439) #46, K4QIF (O/O) #47, K2UYH (559/549), VE1ZJ (O/O) #48 and WD5AGO (O/M). My total on 1296 was of 16x13. Including my 144 MHz score, I ended up with 46x36 total for 165,600 points.

VK2FZ/4:

Adrian heard N2IQU, DL9KR and SM4IVE on 70 cm with a single FO12 yagi during the 1st contest weekend. But only received no replies to calls with his 400 w PA. He put up 4 x 70L DL6WU yagis fed with 280 ohm balance feedline for 1296 EME tests between the Oct and Nov contest weekends. An FHX35G preamp is giving him 6 dB of Sun noise and he has 200 w in the shack. [This efforts apparently paid off - see OE9XXI's report.]

W1ZX:

Willie is looking for skeds with JA stations for 18 Jan between 0400 and 0500, and also for Feb and March via e-mail or NL. Willie was on the 2nd weekend of the contest and worked on 23 Nov at 0000 nil UT7VF, 0030 ON5OF (O/O), 0100 nil OE3JPC, 0127 K1FO (O/O), 0133 G4RGK (O/O), 0200 WD6IMC (O/O) for initial #273, 0224 F1FEN (O/O), 0235 NC1I (O/O), 0325 SM3AKW (O/O) #274, 0340 VE1ALQ (O/O), 0353 K2UYH (O/O) and 0437 W7CI (O/O), and on 24 Nov at 0045 KD4LT (O/O), 0124 OZ4MM (O/O), 0150 K5GW (O/O), 0223 NA4N (O/O) #275, 0240 W9QXP (O/O) and 0340 KF0M (M/O) #276.

W7FN:

Don writes -- I have been very inactive during the past year. In fact, my last report was a year ago. The following 70 cm report is an attempt to catch up: (1996) 06 Jan VE6TA initial #244, 02 Mar: EA3DXU #245, 03 Mar: WA7BBM, 23 Mar: N4GJV, SM4IVE, UT5DL (partial), DJ6MB, G4RGK and F6CGJ, 24 Mar: W7HAH, NC1I, K1FO, DL9KR, OZ4MM #246, SM2CEW and W9QXP, 01 April: W6JKV #247, 19 April: JA5OVU and JA2KRW #248, 22 April: 7M2PDT #249, 25 May: G4FUF (not complete), G3SEK and G4FUF #250, 01 Sept: DL6NAA #251, SM2CEW, G3SEK, ON4KNG #252 and I5CTE, 26 Oct: DL9KR, OH2PO, K5AZU, NC1I, DL9NDD, DF6NA, WA4NJP, K4QIF, SM4IVE, KF0M #253, OE5JFL, F1ANH, WA7BBM, N2IQU, W6VPH (not complete), WB6IMC #254, W8MQW, WD5AGO, VE1ZJ, VE6TA, K5WXN, K1FO, K2UYH, K0RZ, W2CRS/0, K5GW, W6WE, JR9NWC #255, JR2KRW, JA5OVU and JL1ZCG, 27 Oct: W1ZX/3, SM3AKW, IW5AVM, DK3WG #256, KB8ZW, N9AB and KA0RYT #257, 23

Nov: KD4LT, ON5FF/EA8 #258, G4RGK, UT5DL, G3LTF, G4FUF, DJ6MB, DL6NAA, ON5OF, W7HAH, W7GBI and WI7Z #259, (At this point, the top supporting guy wire holding the feed support broke. The result was major damage to the dish. I was able to get the feed back in place, but not repair the surface of the dish, which will have to wait until next spring. It's amazing how much damage can be sustained, yet the system still works!), 24 Nov: DL9KR (dupe), W7CI, N4GJV, SM2CEW, PA2CHR #260, W9QXP/7, WD8ISK/3 #261, JA2KRW (dupe), JA2TY #262, JA0NTY #263 and JA0BOH.

W8ISK:

Terry writes -- Several of us are planning to operate during the ARRL January VHF Contest on 70 cm EME from SC. We will be operating from the QTH of Ken, N4UK (ex KP4XS) in Gray Court, SC (EM84xp). I have completed a portable 432 EME array consisting of 8 x 19 el RIW yagis mounted to the back of my Dodge van. We will be running 1500 w and so far, the system is working very well. I was operational for the last 8 hours of the EME contest last month and made 12 contacts. I probably could have worked more but I forgot about the large Doppler shift and was calling folks well off frequency. Anyway, we would like to make this operation as successful as possible, and to let as many 432 EME ops know about our operation as possible. We want to sked as many stations as possible. The contest period is 1700 Saturday, 18 Jan until 0300 on Monday, 20 Jan. N4UK will transmit on 432.031 for ALL contacts during our operation. N4UK will listen on 432.031 for ALL SKEDS. N4UK will listen from 432.033-432.037 for RANDOM callers. We would like to make skeds beginning at 0100 Sunday until we lose the moon at 0800. We have moon rise again at 2100 (still Sunday) until the end of the contest. We will be testing Saturday from 0000 until around 0400. We welcome all skeds with any station that is of sufficient size to work a 8-yagi station. We ask stations to use grids for the exchange, since the primary reason for us being in South Carolina is to operate the ARRL contest. Only the exchange of a 4 digit grid square is needed in an ARRL VHF Contest. We welcome any and all suggestions/help to make this a successful operation for everyone. The operators will be myself, Ken - N4UK, Gene - W3ZZ, and Chuck - W4XP. I will be using this array to activate WVA in June and other near by states as the weather permits.

W8MQW:

Chuck had a trouble-free contest after discarding his first two attempts at constructing phasing lines for his new 432 array of 8 FO22s. The 1st attempt was home-made hard-line from 1/8 and 3/8" soft air-conditioning CU tubing which worked well for one week before contaminating. One week before the Oct contest weekend he fell back to plan B --- flexible 9913. NG! The return loss was unacceptable. Finally a desperate call to SSB Electronics brought a 2nd day-air spool of the wonderful European Air Line Plus which has worked

flawlessly. Chuck was ready 24 hours before the start of the contest. His results were 38x17 for a score of 64,600. Much of contest time was spent trying different receiver combinations: transceiving, direct conversion with several DSP boards, a converter to 28 MHz with direct conversion, or with a communication receiver, with/without 500 Hz filter with/without DSP. The best combination (but most fatiguing) was the conventional converter + communication receiver + 500 Hz IF filter. But the direct conversion phasing + DSP system was not yet truly operational. During the 1st weekend QSO'd was K1FO (569/559), K4QIF (559/559), WA4NJP (O/O), NC1I (569/559), DL9KR (449/559), N2IQU (579/559), K0RZ (559/559), N9AB (569/559) for initial #30, VE1ZJ (339/449) #31, SM4IVE (579/559), OZ4MM (559/449), OH2PO (579/559), KD4LT (579/559), K2UYH (559/549), K5AZU (559/559) #32, DL9NDD (559/559) #33, K5GW (569/559), W7FN (O/O), K5WXN (549/449) #34, KA0RYT (O/O), W2CRS (O/O) #35 and W7HAH (O/O) #36. QSO'd the 2nd weekend were: OE5JFL (569/559), N4GJV (569/559), W7CI (449/439), PY5ZBU (O/O) #37, G3LTF (559/559) #38, F1FEN (O/O) (strongest station heard), VE1ALQ (559/579) #39, W0KJY (559/449), G4RGK (449/449) #40, WD5AGO (559/439) #41, W9QXP (O/O) #42, JA9BOH (559/449) #43, JA5OVU (559/449), WI7Z (559/559) #44, SM2CEW (559/549) and G3SEK (449/449). [The report which appeared under W8MQW's call in the Dec NL was not his report. I don't know whose report it was. No one has yet written to claim it.]

W2UHI:

Frank writes -- I had a great time in the contest this year. Conditions were good, WX was good, and activity was good. The station operated flawlessly - (I didn't let myself push the power too much). My station now set up for 23 cm operation and consists of an SSB transverter, KB2AH single 7289 driver, water cooled KB2AH 4x7289 PA running 500 w in the shack and about 350 w at the feed, to a HB 5.5 m dish with .45 f/d with a VE4MA feed, DJ9BV hybrid combiner, and 2 KB2AH LNAs in cascade at .2 dB NF. The antenna is computer controlled with a resolution of +/- 0.3 deg. Average Sun noise is 16 dB, Cas A = 0.5 dB, Cygnus = 0.4 dB, and Moon noise near perigee = 0.2 dB. My contest score is 52x27. I look forward to working all of you frequently, and am on the Moon testing and making noise just about whenever it is available to me. Every once in a while I catch a fish. If any of you make changes to your set up or just feel like talking to someone please don't hesitate to call. My e-mail address is [Frank, W2UHI](mailto:Frank.W2UHI). I would enjoy hearing from you.

WB5LUA:

Al can now be QRV on 23 cm through 10 GHz EME on a moments notice. Al is concerned about activity on the microwave bands. He suggests a microwave weekend as a possibly a 3rd con test weekend. Al would like to have a response

from the letters he has written to stations regarding their activity levels on the microwave bands. [I hope to have a copy of this letter for the next NL.]

WD5AGO:

Tommy reports on the 2nd half of the contest -- I was on 70 cm the 1st night with some improvements to the feed system. I worked the following new stations: K5AZU, K5WXN, DJ6MB, W7CI, RA3LE, G3LTF, VE1ALQ, WA4NJP, W8MQW, WB0GGM, W7GBI, K9BCT, CWNR WA6IMC and several JA's for a total of 31x17. The last night was spent on 23 cm. Winds were strong and caused some QSB. Just before the end of the Eur window, it was pouring freezing rain. Sorry If I QRZ'd too much! New ones worked on 23 cm were DK7LJ, JR3AEP, F6KSX and WA8WZG for a total of 47x27. The next day my dish's jack screw broke loose allowing the dish to swing into the ground and tower, providing new dents - the ice was just too much. I think the parabola is OK. I will fix it next month. Band totals are now up to initial #96 on 70cm and #130 on 23 cm. Also last month's NL there was a misprint in the results of my 23 cm LNA measurements. It should have shown an NF of 0.34 dB not 0.24 dB.

ZS6AXT:

Ivo writes -- I really had bad luck this year! On 10 Nov we had a freak hailstorm with hail of up to 40 mm dia.. very hard and coming at high speed nearly horizontal. They broke the dish's protective net in 2 places and wrecked the surface of the dish. Fortunately the damage to the 23 cm horn was minimal, and it still works. The 70 cm primary feed and the preamp is write-off. Nobody here remembers such a bad hailstorm. The result is that the gain is down about 2.5 dB. With the low power I am using, this is a disaster. Rainy weather has prevented from doing any repairs. Despite all of this, I still managed much better than in previous years, probably thanks to better station participation. My total is 53x24. I worked on 23 cm on 23 Nov LA8LF, HB9BHU, OZ4MM, JH3EAO DF3RU, SM2CEW, K4QIF and WB5LUA, and on 24 Nov F6KSX for initial #112, VK5MC, OE9ERC, DF9QX and SM4IVE. CWNR were JR4BRS, JA6CZD, JR4AEP, G4DZU, G4CCH, I2COR, DJ9YW and VE3BQN. These stations I have worked previously (with a good dish) without any problems. The dish repairs etc. will set me back by some 3 months at least. I will not fit 70 cm feed into the dish, but rather build 4 long yagis. These should give me 1 dB more gain. On 23 cm I should also gain at least 1 dB by removing the 70 cm reflector. I will be hopefully operational on 23 cm in Jan and 70 cm in Feb. By then I should be also QRV on 13 cm.

K2UYH:

The Nov contest weekend was pretty much a replay of Oct... Good conditions, reasonable WX and great crew for companionship. Russ, K2TXB operated with

us on the 1st night. (He should be coming on 3 and 23 cm EME from FM28 this summer with a beautiful recently acquired 16' Ku-band satellite dish.) On the 2nd evening Woody, AK2F was again present, but Ray, W2RS was away on business in Eur and could not join us. [Please note that I erroneously listed Ray's call as K2RS in the last NL.] There was no equipment problems this time. I replace the shorted transformer in my 1296 PA and power was back to normal. Complications at work did delayed my arrival home Friday until after 0000, Russ also arrived late, so we were not able start contest operation until about 0040. We operated exclusively 432 the 1st day. We QSO'd at 0044 KA0RYT (559/549), 0055 HA1YA (549/559), 0100 VE1ALQ (549/569), 0107 UT5DL (559/559), 0116 KB0HH (449/559), 0125 DJ6MB (559/559), 0127 K5JL (569/569), 0131 OM1TL (559/559), 0135 ON5OF (559/559), 0143 G3LTF (559/569), 0146 UA6LGH (559/559), 0156 W3ADO (449/O), 0205 PA2CHR (559/559) for initial #579, 0222 NA4N (559/559) #580, 0230 W7HAH (559/579), 0235 N9AB (559/559), 0304 HB9SUL (549/549) #581, 0320 EA8/ON5FF (559/559) #582, 0328 DK3WG (559/549), 0354 W1ZX (559/O), 0421 K2OS (559/539), 0455 N4GJV (569/579), 0512 KF0M (549/549) #583, 0547 W7GBI (559/559), 0800 JA3IAF (549/559), 0809 VK5MC (549/559), 0849 W9QXP (549/439) and 0906 JH4JLV (O/O). The next day we switched to 1296. With most of the leaves off the trees, I tried to start operation with the Moon at about 10 deg. Even though I could see the Moon through the tree branches, I could hear no 1296 signals. I did not start to copy anything until the Moon was above 15 deg. The attenuation (and noise) through tree branches at 1296 is higher than I had anticipated. We QSO'd at 2238 SM4DHN (549/539), 2301 F5AQC (549/549), 2305 HB9SV (559/559), 2310 LA8LF (559/559), 2316 DD1XF (559/559), 2322 G3LTF (559/559), 2327 SM3AKW (559/559) dup, 2330 SM2CEW (559/559), 2335 G3LQR (549/559), 2347 S59DCD (549/549) for initial #137 [DK7LJ which we had listed as an initial last month was actually the same as DL0SHF], 0020 DF3RU (O/O), 0040 4X6UJ (O/O) #138 and DXCC 32, 0045 WB5LUA (559/559) dup, 0051 VE1ALQ (559/569), 0055 VE1ZJ (559/569), 0102 EA3UM (559/559), 0106 K4QIF (569/559) #139, 0128 F6KSX (559/559) #140, 0137 W0KJY (559/559), 0205 HB9BBD (559/569), 0215 VE6TA (549/559), 0242 OZ4MM (569/569), 0249 DL0SHF (559/559) dup - same as DK7LJ, 0257 G4CCH (549/539), 0324 WA8WZG (449/519), 0435 partial N4MW? (449/549), 0451 WA4NJP (O/O), 0902 JH5LUZ (O/O) dup, 0909 JH3EAO (559/559) dup and 0925 VK5MC (549/559). During the last hour of the contest with the Moon near 10 deg, I tried 432 again. The attenuation of the trees was definitely less at 70 cm and I was able to add at 2323 G3SEK (O/O). We sent QRZs to another station, but QRM, noise from the trees and finally time prevented a QSO. We ended with 77x28 on 432 and 54x30 on 1296.

NETNEWS

UA9FAD, Victor finished the contest with (14x9).

UT5EC, Valerij made 13x8 in the contest. Initials were RA3LE and DL1EJA.

UT5DL, Slava worked 40x21 in contest including DL1EJA.

UT7VF, Victor had his best result ever in the contest with 26x15. New calls logged were DL1EJA, JA5OVU, K0RZ and DJ6MB.

ON5RR is QRV on 1296 with a 6 m dish. He completed an initial QSO with OE9XXI using only 40 w.

WA8WZG had difficulty with the dual dipole feed on his 16' dish, but was QRV during the contest on both 70 cm (1.5 KW) and 23 cm. He is reported to have scored 5x4 on 23 cm and 1x1 on 13 cm in the contest.

WI7Z worked 15 stations during 1st part of the contest.

WB0GGM was on 70 cm in Nov and worked 11 stations. He is still working on 23 cm.

W6WE had PA problems in Nov, but did make it on for the end of the contest.

ON5OF worked 30X18.

N2HLT,Leon is a new station in FN12 with 4 x RIW yagis and 600 w. He copied NC1I and OH2PO. His address is (Leon Ingerick Jr, 4189 Bath Rd, Penn Yan, NY 14527; tel 315-536-3103).

KA0PYO was not QRV during Nov on 23 cm because of WX problems.

UT5DL logged 40x21 in the contest on 70 cm.

EA8/ON5FF (IL28) worked 32x20 on 70 cm, and is LF skeds.

G4ALH ended with 31x17 on 70 cm.

OE5JFL's totals were on 70 cm 124x41, on 23 cm 68x34 for a 285x110 overall score (includes 2 m).

W9QXP wants to talk to someone using N6CA 23 cm single tube amp. He reports 700 w out of a Russian tube on 23 cm with 60 w in. He worked NU7Z and K6MYC on 70 cm for a total of 29x13.

KA0RYT was iced up a bit, but added 36x19 including 7 initials on 70 cm for a total count 52/?. He reports the 2nd evening was best both weekends.

WA4NJP's final tally was 105x52 on 3 bands.

DL9KR ended with 144x44. Jan added initials with UR3EP (KN78), ZS6PT - 5.3 m dish and 50 w, JA0VI, JH1EFA and JR1EUX.

G3LTF's score was 47x26 on 70 cm and 44x23 on 23 cm.

LU7DZ will be on 70 cm EME calling CQ on 432.010 at 1100z on 1 Dec with 200 w and a 4x33 el yagi array.

F6CGJ's contest score, on 23 cm was 72x33. He did not operate on 3 cm this time.

DJ5MN worked 2x2 on 70 cm. He did not hear any NA stations.

WB6IMC will be active on 70 cm in Dec SW. KL7HFQ will be QRV for Dec SW.

VK3UM is about to release V8.01 of his super EME Planner which will have many additional features and remove the year entry anomaly which only allows years up to 1999. Doug's new e- mail address is [Doug, VK3UM](mailto:Doug.VK3UM)

JA0VI, Tsuyoshi Miyazawa was QRV with 8 m dish and several hundred watts. He worked DL9KR and others.

JA0VEI address in Dubus list is wrong.

JA5OVU scored 87x32 on 432 16 x 14el pol rotatable yagi array.

JH1EFA, Shigeru Takeda, address (5-11-1 Higashi Sate-city Saitama 340-01 JAPAN), PM96ub, tel +81-480-43-5911, e-mail [Shigeru, JH1EFA](mailto:Shigeru.JH1EFA) is using a 60 w solid state PA mounted at the feedpoint of a 4 x FO22 yagis array. He ran Horiz pol in Oct and Vert in Nov. He will have permission for 500 w soon.

ZS6PT is QRV on 70 cm with 5.3 m dish and 50 w.

JA5OVU 87x32 on 432 MHz single band.

JA9BOH ended with 59x26 on 432.

JS3SIM's contest score was 43x22 on 432.

JA2KRW finished with 37x18 on 432.

JH4JLV achieved 23x13 on 432.

JA6XED scored 18x? on 70 cm.

JR9NWC and JA2TY in PM84gs with 4 x 33FO yagis and 1300 w PA, JJ1NNJ, JO3RNL, JH7PAV, JH0YSI, JA3IAF, JR4AEP, JR1RCH and JR1EUX were also reported QRV on 432 during the contest.

JH5LUZ had 42x? on 1296.

JR4AEP and JR4BRS were also reported to be QRV on 1296 during the contest.

S52CW: is Uros Hiric, Gorica 14, 64240 Radovljica, SLOVENIA, JN76. He is using 8 x 7.7 w/ BV yagis and 200 w. He worked 7 on 432 in the contest.

FOR SALE

KB2AH is producing **VE4MA like 1296 feeds with built-in IMU type circular polarizer.** He also has **a complete line of 1296 HPAs (6, 4, 2 or 1 x 7289 amps)** available. Contact Tom at 908-223-8124 or e-mail at [KB2AH](#) or at [Tom's WEB page](#)

W1ZX has for Sale **'96 Int'l EME Conference Items: Hats (\$7), Clocks (\$3) - all with the Conference logo of course. Proceedings are still available for \$US 12 + shipping (US \$3, Eur \$US 12 via Air Mail); GR IF Amplifier 1236A \$US 150 + shipping, Bird 43 Watt meters (1) \$175, (2) \$190, (3) \$200 with new meter movement + shipping, AIL 75 NF Meter with cabinet \$US 275 & shipping, AIL 7010 Noise Generator \$US 50, AIL 70 Diode Noise Generator \$US 50, HP 349A UHF Noise Source \$US 75, Noise Comm Noise Diodes NC305 \$33, and several Transco "Y" type Relays with "N" Connectors \$US 50 & shipping.** Call Willie at 301 645 5584, 2000-2230 EST, FAX 301 645 6853, 24 hours, or e-mail to [Willie, W1ZX](#)

W9QXP needs **a xtal for 105.666 MHz for converter. 79.25 MHz will work too.**

SM2BYA:, Gudmund is looking for **an 8283/3CX1000A7** in good or new condition.

K5WXN has **2 TWTAs for sale for 2-4 GHz.** They are from Eimac type EM-108a (2% duty cycle at 1 watt, 6.3v @3amps fil, 7500 v helix at 1300 ma collector current,

1 kV collector voltage.)

PA3CSG has a **70 cm PA using a GS35B tube for sale**. It runs 1.2K out in a cool state, and should be capable of much more when higher anode voltage is applied. Geert can be reached at tel 31 475 565502. De dose not yet have e-mail.

PA0BAT has reproduced **the compilation of past NL technical material** originally edited by PA3CSG the 1992 International EME Conference in Thorn. These are available from him at \$US30 - sent cash no checks, to Gerard Geesink, Generaalsweg 6, 7055 AC Heelweg, The Netherlands).

HB9JAW has **for sale a 16 x 15 el K1FO/DL6WU rear-mount yagi array on Al-H frame with open wire feed system**. This a complete assembled 70 cm EME System. Please contact HB9JAW, Mike at tel: xxx 41 41 930 11 40 or by e-mail at HB9JAW

NU7Z has a **TH-308 23 cm amp** without tube for sale for \$US425 + shipping.

FINAL

This is a huge NL. Don't get put off by the size - there is lots of "good stuff" in the reports - see DK2FBs report on reception of the Mars Global Surveyor for example. Please also note the report by W8ISK on his dxpedition to SC during the ARRL VHF Contest, on 18/20 Jan.

Normally I can complete a NL in a weekend with just about a 100% effort. This one has pushed the limits, and I have not been able to do as through a job as I would have liked. I believe I have included everyone's reports. If by some chance I have missed yours please excuse me. Because of time, I have put off some technical and operating material for next month.

We need to deal with the issue of how to better encourage activity on the microwave bands above 1296.

Be sure to get your contest results into the ARRL. You can e-mail your logs to the ARRL at [ARRL CONTEST RESULTS](#)

Let me wish all of you **the very best holiday greetings... and may the conditions in 97 all be great and may Murphy stay away, far away _ have a very Happy New Year.**

I shall be looking for all of you during the Dec SW.

73, A1 - K2UYH

[432MHz & up EME skeds](#)

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This information was obtained from [Scott, KD4LT](#)

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For Comments or corrections: [Rein, W6/PA0ZN](#)
